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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,641	03/14/2005	Edwin Nun	266371US0PCT	7110

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EXAMINER	
HAILEY, PATRICIA L	
ART UNIT	**PAPER NUMBER**
1755	

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/527,641	NUN ET AL.	
	Examiner	Art Unit	
	Patricia L. Hailey	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/14/05, 02/21/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *See Continuation Sheet*.

Continuation of Attachment(s) 6). Other: Information Disclosure Statement filed 03/28/06.

Applicants' Preliminary Amendment, filed on March 14, 2005, has been made of record and entered. In this amendment, claims 1-17 have been amended to conform to proper U. S. Patent language format and to eliminate multiple claim dependency, and new claims 18-25 have been added.

Claims 1-25 are now pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on March 14, 2005.

Claim Rejections - 35 USC § 101

2. Claims 13-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 13 and 21 recite the term "utilizing", which renders these claims and any claims depending therefrom directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 13-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 13-25 are indefinite because, although directed to various methods (e.g., a "method for producing soil and water repellent coatings"), these claims do not recite any specific method steps clearly defining said methods.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. ***Claims 1-14, 16-22, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Julian et al. (U. S. Patent No. 5,500,216).***

Julian et al. disclose a uniform suspension of a composition formed by a mixture of 2 hydrophobic metal oxides (known to have been used in coating formulations to coat paper, textiles, wood, concrete, and plastic surfaces; see col. 1, lines 61-67; considered to read upon **claims 16, 17, 24, and 25**) in a vaporizable liquid carrier such as ethanol. See the Abstract of Julian et al.

The composition is a uniform suspension of, for example, hydrophobicized silicon dioxide particles in a pharmacologically acceptable fluid carrier, such as an alcohol. See col. 2, lines 1-7 of Julian et al., as well as col. 2, lines 21-30, which discloses that upon application of the composition to skin, the carrier evaporates from body heat (this disclosure is considered to read upon **claims 6, 9, 13, 14, 21, and 22**).

The composition contains from 2-20% by weight of hydrophobic metal oxide particles dispersed in the fluid carrier. See col. 2, lines 52-57 of Julian et al., which also discloses that the fluid carrier can be water (considered to read upon **claims 5-8, 10, 12, 18, and 20**).

In addition to the hydrophobic silicas employed, other hydrophobic metallic oxides such as alumina, titanias, and zirconias may be employed—with or without silica—in preparing Patentees' composition. See col. 3, lines 28-42 of Julian et al., which also discloses the employment of hydrophobic pyrogenic silicas, as well as the employment of "basic oxide particles...produced pyrogenically or otherwise, e.g., by wet precipitation techniques." This disclosure is considered to read upon **claims 1-4**.

Because Julian et al. disclose a suspension reading upon that instantly claimed, it would necessarily follow that Patentees' suspension would exhibit a dynamic viscosity such as that recited in **claims 11 and 19**.

In view of these teachings, Julian et al. anticipate claims 1-14, 16-22, 24, and 25.

7. Claims 1-6, 8-11, 13, 14, 16-19, and 21, 22, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Keller et al. (U. S. Patent No. 6,683,126).

Keller et al. disclose a coating composition comprising at least one powder whose particles have a hydrophobic surface; examples of these include aluminum oxide, titanium dioxide, and silicon dioxide. See col. 6, line 60 to col. 7, line 4 of Keller et al., which also discloses pyrogenic silicon dioxide as a preference, and col. 7, lines 21-27, which further discloses that the powder particles may be prepared by "the methods known for the preparation of hydrophobicized pyrogenic silica." This disclosure is considered to read upon **claims 1-4**.

The coating composition may also contain, if desired, an organic diluent or solvent; exemplary solvents include ketones, and aliphatic and aromatic hydrocarbons. See col. 7, line 62 to col. 8, line 11 of Keller et al.; this disclosure is considered to read upon **claim 6**.

In such a composition, the solids content ranges from 0.5 to 80% by weight. See col. 8, lines 12-19 of Keller et al. (considered to read upon **claims 5, 8-10, and 18**.

Because Keller et al. disclose a composition comparable to that instantly claimed, it would necessarily follow that Patentees' suspension would exhibit a dynamic viscosity such as that recited in **claims 11 and 19**.

"In principle, all conventional surfaces may be coated with the coating compositions of the invention. Examples of the conventional surfaces are the surfaces of wood, metal, glass, and plastic. The coating compositions of the invention may of course also be used to coat rough and/or porous surfaces, such as concrete, plaster, paper, woven fabric, examples including textile woven fabric for clothing, umbrellas, tents, and marquees, and for comparable applications, and also leather and hair as well."

See col. 8, lines 36-54 of Keller et al., as well as col. 10, lines 39-51 (which discloses that Patentees' compositions are suitable for affording protection against soiling, in particular, surfaces which are exposed to weathering), and col. 11, lines 19-31; this disclosure is considered to read upon **claims 13, 14, 16, 17, 21, 22, 24, and 25**.

In view of these teachings, Keller et al. anticipate claims 1-6, 8-11, 13, 14, 16-19, and 21, 22, 24, and 25.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller et al. (U. S. Patent No. 6,683,126) in view of Tully (U. S. Patent No. 4,102,703).

Keller et al. is relied upon for its teachings in the above 102(e) rejection of claims 1-6, 8-11, 13, 14, 16-19, and 21, 22, 24, and 25. Although Keller et al. at col. 8, lines 45-54 disclose that application of Patentees' coating composition is "in accordance with the application techniques customary in coatings technology", and further exemplify said techniques by disclosing methods such as brushing, spraying, airbrush, dipping or

rolling, "with subsequent drying of the coating, during which the solvent evaporates", this reference does not explicitly teach or suggest knife coating, as recited in claims 15 and 23.

Tully discloses water-repellent coating compositions comprising a hydrophobic particulate metal or metalloid oxide, such as silica, titania, and alumina (col. 3, lines 5-23) suspended in a water-soluble polyhydric alcohol or aqueous solution thereof (col. 5, lines 42-61), can be applied to substrates such as natural fibers, woven and non-woven textiles, paper, wood, etc. (col. 8, lines 49-60), via conventional coating methods such as doctor blading (also known as "knife coating"). See col. 8, line 61 to col. 9, line 5 of Tully, which also discloses some of the same customary techniques as Keller et al. at col. 8, lines 45-54.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Keller et al. by substituting any of the known techniques disclosed therein with doctor blading ("knife coating"), as suggested by Tully, and thereby obtain Applicants' claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patricia L. Hailey/plh
Examiner, Art Unit 1755
September 28, 2006

J.A. LORENGO
SUPERVISORY PATENT EXAMINER